

TRANSFORMING GYNAECOLOGY SERVICES

Applying process redesign methodology to improve the management of outpatient clinics

Why was the initiative launched?

In 1995, staff in the Gynaecology Department in Leicester were concerned about the clinical management of outpatients. They felt that the process could be handled better. These concerns were mirrored by the views of patients in a local research study. Several problems were identified, including delays in making initial appointments, the number of visits required before a diagnosis was made and the fragmented nature of the service. At about the same time, Leicester Royal Infirmary was setting up one of two nationally funded pilot projects to examine whether re-engineering methods could improve performance and transform the organisation's capacity for change.

Publication of an Effectiveness Bulletin in 1995 about the management of menorrhagia added scope for a redesign project. It eliminated debate about evidence and allowed the Trust to create a project which brought together the application of process redesign methodology and the implementation of evidence based practice.

What was done?

A group of senior clinicians from the Gynaecology Department and the Trust's re-engineering team, with support from the Directorate and the Trust's chief executive, undertook two preparatory tasks.

Firstly, they analysed current activity to pick out a group of patients whose management could be looked at in process terms. They chose women who had been referred with menstrual problems.

Secondly, they set about establishing a broad understanding, or a process map, of patients' experience in the system at that time.

The two tasks also helped to identify who should be involved in the redesign work. The aim was to ensure that all staff could contribute to the redesign. A meeting of a multi-discipline group was arranged to launch the redesign process. Each member of the group was individually briefed

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about the purpose of the meeting and asked to assemble background data to inform the debate. The initial group meeting lasted for about three hours and provided an opportunity to investigate the existing process and, for example, ask basic questions about the value added by each stage. A member of the hospital's redesign team facilitated the meeting. The multidisciplinary team continued to meet monthly to review progress for the initial six months.

There was broad agreement about the key features of the redesign. The aim was to create a single visit clinic where all aspects of routine cases could be handled.

A redesign team, nurse Jill Diaper and midwife Caroline Shaw, was appointed to undertake the detailed redesign work. This took about eight weeks and involved discussions with individual members of the group and two Group meetings. Two tasks were particularly important, the formulation of:

- ◆ *Selection and scheduling criteria* which would enable a new role for the clinic coordinator to function. Tasks include allocating referrals within clinic schedules and providing information for patients to ensure they know what

Table 1: Menstrual clinic impact on patients

	Before redesign	After redesign
Number of visits to diagnosis	4	1
Time from consultation to diagnosis	16 weeks	Same day
Women treated by evidence-based protocols	0%	100%

to expect: patients are encouraged to phone the clinic if they have any questions - not leave any doubts until the appointment.

- ◆ *A protocol for diagnostic tests*, a key activity that would have to be handled promptly if the one visit service was to be practical.

Once the redesign was complete and agreed by the Group, plans were put in place to pilot the new approach. Because staff had been involved in the service redesign, special training was not necessary. Indeed a 'Hawthorn effect' was evident as staff started to work in the spirit of the new service before the formal pilot stage was launched. The period of trial of the new service proved to be very helpful in spotting aspects of the redesign that needed additional work. For example, from the outset it became evident that it would not be possible to achieve the required turn-round for diagnostic tests if the regular hospital distribution system was used. Specimens are taken to the laboratory by staff from the clinic and results faxed through the same day.

What benefits were achieved?

All the projects in the Trust's re-engineering programme were subjected to careful evaluation. A framework to define success was developed to measure how organisational effectiveness was achieved. The framework covered measures related to service process and patient outcomes.

The introduction of the service redesign for the menstrual clinic has demonstrated dramatic benefits for staff and for patients. The Tables show what has been achieved for patients.

The way that the work was managed helped staff to take ownership of a problem and enabled them to create a solution. It enhanced multidisciplinary working and allowed new roles to be identified and implemented successfully. Clinical staff showed that they could implement evidence-based practice. While GPs were not actively involved in the development work they now enjoy a single point of access to the service. Communications between the Gynaecology Department and primary care have improved: consultants are in regular contact to guide GPs to ensure that the right patients are referred to the clinic. Overall, the project has helped to achieve a change in culture.

The work has also played an important part in the Trust's overall re-engineering programme: a wide range of successful projects has been completed in the last four years. The redesign team is now part of the Centre for Best Practice at the Trust and provides support and expertise to those in the NHS and abroad that are interested in adopting the re-engineering approach.

Table 2: Teamworking impact on patients

	Before redesign	After redesign
Percent of patients seen within 30 minutes	63	99
Percent of patients not attending	9	1
Percent of letters sent to GP the same day	0	78
Percent of appointments within 24 hours of receiving referral	4	96
Percent of theatre sessions starting late	25	3

Tips for success

- ✓ Clinical leadership is essential - but ensure also that senior managers are actively involved.
- ✓ Promote a culture of openness where differences of opinion are valued and initiative welcomed.
- ✓ Make sure that everyone who will be affected by the work is involved from the start - ownership is important and will ease the process of change.
- ✓ Create opportunities for the problem to be looked at from different perspectives - hear all views.
- ✓ Don't expect to get it right first time - plan a pilot implementation phase to allow for fine-tuning.
- ✓ Change can be made quickly - if the solution is created by those involved, specific training may not be required.
- ✓ Ensure that team meetings are learning opportunities - someone with facilitation skills can help that process.
- ✓ Expertise in applying analytic skills and change management tools will speed the process.

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The following materials are available

- Selection and scheduling criteria
- Treatment protocol for women with menorrhagia

ImpAct bottom lines

- ⇒ Active - senior - leadership is important when tasks require coordination across large (and small!) organisations.
- ⇒ Time spent telling staff affected by initiatives what is going on is never wasted.

APPLYING RE-ENGINEERING PRINCIPLES TO HEALTH CARE

Business process re-engineering has its roots in commercial manufacturing. Development work in the 1970s and 1980s in a range of commercial settings showed significant benefits from a systematic approach to the analysis and restructuring of manufacturing processes. It was widely adopted as a means of improving manufacturing output to produce significant improvements in quality, capacity and cost. The approach attracted the interest of managers in the NHS and two projects (at Leicester Royal Infirmary and at Kings Healthcare in London) were funded by the Department of Health to test its application in a health care setting.

The work started in Leicester in 1994. It involved a significant programme of 140 separate projects. A *Framework for Defining Success* was established to ensure that the impact of the work in its widest sense could be measured. Over the last five years significant gains have been made in the quality of services offered to patients, as well as in teaching and research. Indeed, few departments in the hospital were untouched by the initiative.

The key lesson from the work at Leicester has been that change is typically created bottom-up in contrast to the top-down approach championed by the academic supporters of re-engineering. Clinical and management leaders have to create the right conditions for improvement. Redesigning health care differs in significant ways from that which can be applied in industrial settings: it involves several distinct steps:

- ◆ Identifying specific patient groups - targets for service process redesign.
- ◆ Ensuring that those involved in service provision are involved in service redesign.
- ◆ Being clear about the tools and techniques available.
- ◆ Analysing the current process to identify strengths and weaknesses: what adds value and what doesn't?
- ◆ Creating a model for the redesigned service.
- ◆ Establishing performance measures.
- ◆ Testing the new process - being honest - does it or doesn't it work?
- ◆ Then DOING WHAT WORKS.

Leicester Royal Infirmary has created a tool-kit that describes the tools and techniques used for patient process redesign. The tool-kit provides the basis for a series of *Re-engineering Masterclasses* that have attracted clinical and managerial interest within the UK and internationally, with visitors from health services in New Zealand, Sweden and Denmark taking part. The Leicester Royal Infirmary's dissemination work has been recognised with the granting of specialist Learning Centre status, thus confirming their role as an integral part of the growing NHS Learning Network

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FINDING A BETTER WAY TO MANAGE EMERGENCY ADMISSIONS

Reorganising the medical admission arrangements at Stobhill Hospital, Glasgow

Why was the initiative launched?

Acute medical services at Stobhill Hospital, like many other hospitals, are under increasing pressure because of the steady rise in the numbers of medical emergencies. Many factors, such as lack of home support, conspire to limit the numbers of patients who can be sent home without admission. In 1993, Stobhill Hospital had 229 beds for acute medical services in a mix of medical and specialist units on two sites in Glasgow.

Admissions were managed through three medical units taking emergencies every third day. The system was starting to creak under the pressure. Problems included disruption for patients every third night on take, delays transferring elderly patients within the hospital, lack of specialised facilities for post MI patients, and anxiety about maintaining adequate nursing cover within falling budgets. Something had to be done.

What was done?

A multidisciplinary team was charged with developing a new system. They knew that research suggested that existing resources were likely be used inefficiently, and that reorganisation should bring improvements. To help them develop ideas on which to base a new system they visited three other hospitals that were broadly like Stobhill. They were keen to learn from the experience of others.

The team promoted extensive local debate about possible alternatives. What was the best way forward? What resources were available? How could they find a better way?

Stobhill team	
Hamish McLaren	clinical director
Myra McMurdo	discharge planning co-ordinator
Winnie Miller	operations manager
Christine Robb	ward manager
Lesley Summerhill	director of nursing

Stobhill Hospital: new system for medical beds - August 1993

Number	Ward	Beds
1	Acute medical receiving	26
3	General medical	56
1	Coronary care unit	6
2	Cardiology	40
1	Respiratory disease	24
8	Total	152

The target was not to achieve a specific financial saving but to improve the service provided. An important factor in the discussions was the willingness of managers to allocate additional resources if needed to ease the implementation of a new system.

As a new system was being developed it was clear that fewer beds would be needed. Over time improved organisation allowed a gradual reduction until there were about a third fewer. Staff supported this process because the beds were kept until the case for them not being needed was proved. The new system includes eight wards all on one site with a focus for admissions on an acute medical receiving ward.

All medical emergencies except those admitted to the coronary care unit are now admitted to the acute medical receiving ward for investigation and assessment. To spread the load across the senior medical team one consultant takes charge of the ward for each 24-hour period. All patients are reviewed at least daily and referred or discharged as appropriate to ensure that space is available for new admissions. The rota commitment has been planned to avoid disruption to other activities like outpatient clinics.

Three features of the new system are important.

- ◇ **First**, the appointment of a *patient management team* charged with handling the administrative aspects of the patient's hospital stay. They ensure that patients are speeded through the system and discharged home as early as possible.
- ◇ **Second**, arrangements for *specialty transfers* were improved: *consultants* from cardiology, respiratory medicine and elderly care now visit the receiving ward daily to ensure the timely transfer of patients.
- ◇ **Third**, a fast track service for *laboratory investigations* was introduced to ensure that time waiting for results is kept to a minimum.

A contingency plan was devised in 1996 to deal with winter pressures. This designated and trained staff so that an additional ward could be opened at short notice.

The team's effort to involve everyone in developing and refining the new system paid dividends when it came to implementation. It was a natural progression from the discussion. Specific training initiatives were not needed. People simply took on the new way of doing things.

Is it working?

Despite the significant reduction in the number of beds, the hospital has been able to handle the continuing increase in medical emergencies without any serious problems (Table). Specific advantages of the new system are:

- ◆ Care of acutely ill patients is concentrated in one area that can be suitably staffed and equipped.
- ◆ Other specialities (such as Medicine for the Elderly and laboratories) are more easily able to offer a fast track support service since they only have to provide this on one site.
- ◆ Handling all medical emergency admissions through one location has facilitated use of clinical protocols, clinical audit and improved data collection.
- ◆ Patients' sleep is no longer disturbed every third night.

An unexpected bonus has been the effect on staff morale. Stobhill is an old hospital whose continued existence has been under threat. The successful introduction of the new system, and the interest of clinicians and managers from other hospitals, has made staff aware that they are working in a successful and innovative organisation. A local survey has also shown that 91% of nurses (n=26) and 93% of medical staff (n=11) perceived the new systems being better than the old, a view shared by 52% of patients (n=22),

The hospital has relied on the system to help them cope with winter pressures. Periods of exceptionally high demand last only for a few days and the contingency plan put in place at the hospital has proved its value. The additional ward has been used for 14 days in 1995/96 and 10 days in 1996/97 enabling the hospital to avoid cancelling any elective surgical procedures.

However, as with all changes there are disadvantages to be tackled:

- ◆ Continuity of medical and nursing care is reduced - but good communications can overcome any problems.
- ◆ Because of the rapid turnover administrative procedures such as handling of discharge letters and follow-up appointments have to be efficient.
- ◆ Patients who are not discharged from the receiving ward move at least once during their stay.
- ◆ Ward rounds in the receiving ward have to take precedence because of the need to free beds.

Stobhill hospital: changes in medical bed use 1992-1996

	1992	1994	1996
Medical discharges	7,904	9,630	10,000
Average stay (days)	7.1	4.8	4.5
Emergencies (%)	77	87	93
Total staffed beds	223	167	161

There is local satisfaction that the system introduced in 1993 has served the hospital well for six years. But with the continuing rise in the level of medical emergencies there is no place for complacency. As with any new system introduced to respond to a problem its time will come! The team is acutely aware of the need to watch the situation with care and act if the system starts to crumble.

Tips for success

- ✓ Involve all clinicians from the outset in planning new systems: ensure members of the senior management team are involved.
- ✓ Reorganisation will involve a change in working practices for many: help all clinicians to accept this fact.
- ✓ Cooperation of other departments may be important: such as a fast track for investigations to ensure that patients can be assessed promptly.
- ✓ Show that resources are not needed before they are taken away.
- ✓ Links with other similar organisations can allow innovations developed elsewhere to be adapted for local purposes.

- ✓ poses.
- ✓ Some extra resources might be necessary to create new posts or resources to facilitate a new system.
- ✓ Look for innovations, such as new roles or posts to help ensure success - e.g. the patient management team used at Stobhill.

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The following material is available

- Detailed report of the initiative together with supporting papers.

ImpAct bottom lines

- ⇒ Do not underestimate the positive impact development work can have on staff morale.
- ⇒ Solutions do not last forever - be ready to change systems when they start to show their age.

COMPUTING ESSENTIALS TO SUPPORT HEALTH PROMOTION IN PRIMARY CARE

Helping all practice staff to develop IT skills

Why was the initiative launched?

EQUIP (Education and Quality in Primary Care across North Essex) evolved in 1996 from Essex MAAG and GP Education in Essex. It is jointly funded by the Health Authority and by practices to meet the education and training needs of primary care staff and to improve the quality of audit. The philosophy is to use audit as an educational tool.

Questions about the use of computers and IT skills arose when the locally agreed health promotion programmes (including ischaemic heart disease and stroke) started to take shape. Data analysis would be essential for the audits and educational sessions. Obviously a task better handled electronically. Similarly, success with the introduction of disease registers in practices, another essential contribution, would depend on IT skills. Early discussion between the EQUIP team and practices suggested that practices needed help to enhance their IT skills to make these plans a reality.

What was done?

An initial training session on the care and treatment of patients with diabetes made clear what needed to be done. GPs were asked to analyse the records from a sample group of their patients as preparation for the session. This proved an impossible task for most GPs. As one said at the time,

"We can find ways to enter data but it seems to be impossible to get it out". In many systems data was entered as free text with no facility to retrieve and analyse it. Something needed to be done to help practices handle data more effectively.

Evaluation of early training sessions on the management of coronary heart disease, diabetes and asthma provided EQUIP with a set of important signposts for IT training. The recommendations were reinforced by research at Anglia Polytechnic University. Training for staff in primary care should:

- ◆ be based on the needs of participants
- ◆ be available to all practice staff
- ◆ have an emphasis on multi-disciplinary sessions
- ◆ be based at the practice wherever possible
- ◆ reflect the wide range of IT systems in use in practices.

EQUIP worked collaboratively with the North Essex Practice Managers Forum to ensure that the training provided was practice driven. They were conscious that their success depended on the way they were regarded by local practices - as a supporter rather than critic or inspector. Two parallel programmes have evolved over time:

- ◆ *At practice level* - providing on-site training to help all the team get the best out of their systems. To support this programme EQUIP sought the help of an IT con-

IT courses provided by EQUIP

Computers	what are they
Hardware	familiarisation for practice managers
Computing	essentials for nurses
Word, Excel and Access	sessions at different levels as well as more specialised sessions
Understanding	databases
Data handling by computer	in house provision
Data handling	for audit clerks
EMIS	training for nurses
Meditel	training for nurses
Internet	as a resource for GPs

sultant who had experience of working with IT systems in primary care. The courses involved up to four practice visits and were individually designed around the needs of the practice. The aim was to improve skills in converting data into information to enhance care for patients. Sessions had PGEA accreditation.

- ◆ *Cross-practice programmes* covering generic issues (Table). EQUIP sought support from a range of local experts to provide these sessions. The success of these programmes is very evident because the participant lists filled quickly.

Different funding sources for training of clinical and non-clinical staff presented difficulties. EQUIP had to find imaginative ways to assure funding. One clever method ensured that people attended: participants provided a cheque to guarantee a place - but the cheque was cashed only if the person or practice failed to attend! Care was taken to ensure that the parallel programme of clinical training and audits was in step with the computing courses. Many of the clinically focused workshops (like asthma in primary care) had sessions on IT issues.

EQUIP supports a major ongoing health promotion audit and the team recognised that efficient data collection would be important for its success. To help practices an audit clerk scheme was set up to provide grants of £500 per practice to cover additional hours for data collection and to support the creation of chronic disease registers. In-house training and support was made available for the audit clerks to help them understand and use of their practice systems, and to cope with doctors reluctant to use the technology on their desks. Accreditation from the Accreditation Consortium of South Anglia allows audit clerks to receive a nationally recognised qualification. Networks of audit clerks have been established within PCGs to support Clinical Governance.

Is it working?

The team does not rely on questionnaires to evaluate the computing sessions and courses. Rather it follows them up samples participants by telephone. They ask whether time spent was worthwhile, information received useful and, importantly, whether they would recommend the session to others. Changes have been made to respond to points made. For example, an early session for audit clerks was pitched too high and assumed an unrealistic level of knowledge! Further training on medical terminology was also needed for data collection for the health promotion programme.

Success was evident from the increasing numbers of practices finding the process of assembling data to support audits easier. The number of practices using audit clerks grew rapidly over two years and by September 1999 covered about 80% of the practices in North Essex. In the latest health promotion audit, 18,000 data entries were analysed and data gathered from practices covering 70% of the 870,000 North Essex population. Data is collected and fed back individually to practices every 6 months.

Tips for success

- ✓ Find out what people want, make training needs-led.
- ✓ Recognise that GPs, nurses and practice staff may have different needs.
- ✓ Encourage multidisciplinary training *and* working - valuing the contributions of all members of the team.
- ✓ Take training to practice staff - be proactive.
- ✓ Ensure that course leaders are credible.
- ✓ Be flexible - the same approach will not appeal to all.
- ✓ Listen, and adapt and change sessions if required.
- ✓ Don't allow course fees to become a deterrent, find imaginative ways to assure attendance.

To find out more contact:

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The following material is available

- Course programme.
- Examples of course content.
- Summary of the report: Strategic education and development of primary health care teams.
- Locally developed Read Codes
- Sample Health Promotion reports
- Feedback by PCG Chairs and Clinical Governance Leads

ImpAct bottom lines

- ⇒ Just because people use the language of IT don't assume that they understand it.
- ⇒ Practical training makes things happen.

SDP DATABASE

Progress with the development of Service Delivery and Practice database

In Issue 1 of *ImpAct*, Jennifer Dixon described plans for the NHS Learning Network. The SDP database of good practice in service delivery is one part of the Learning Network. When the NHS Learning Network was being planned, two key questions had to be addressed if real progress in spreading good practice was to be achieved:

- ◆ How can people working in the NHS find out about good practice and experiences in other parts of the NHS?
- ◆ How can people working in the NHS tell their colleagues about their experiences?

The chosen approach was to create a national mechanism to record and locate examples of local initiatives. The SDP database is intended to offer a shortcut to knowledge about good practice around the country and discourage people from reinventing wheels! Other elements of the NHS Learning Network are exploring the essential issue, how to encourage inquisitiveness or hunger for learning.

SDP database – the aim

The aim is to provide a mechanism by which people in the NHS and partner organisations can exchange information about developments in service delivery and practice. Partner organisations might be local authority social services departments or voluntary organisations. The database is live and interactive – with entries to be regularly updated. Each entry follows a fixed format, allowing easier searching.

SDP Database - coverage

Developments in management and clinical practice can be accommodated. Indeed the coverage is planned to mirror the range of challenges we plan to cover in *ImpAct* such as:

- ◆ The development of local systems for clinical governance, associated questions about clinical quality, national service frameworks
- ◆ The management of emergency pressures, demand and waiting times
- ◆ Working across institutional boundaries
- ◆ The development of primary care groups
- ◆ Involving patients and the public
- ◆ Developments in human resources like staffing and skill mix issues

Entry Criteria

No strict entry criteria have been set because much of the learning from local service development comes from initiatives that are not the subject of formal evaluation. The choice about whether the project is likely to be of interest to others rests with the person deciding whether to make an entry.

Practicalities

To use the database you currently need access to the NHS Net: the database can be accessed through the NHS Learning Zone <http://www.learning.zone.nhsweb.nhs.uk>.

Anyone can search the database, but to make an entry a username and password are needed. If you work in a PCG, these can be obtained from the chief executive of the local health authority. If you work in a NHS Trust you can obtain a username and password from your chief executive.

The database has been constructed so that as soon as an entry is made, an email containing the entry is automatically sent to the relevant chief executive (who supplied the username and password). The email is copied to the Regional Director of Strategic Development at the local NHS Executive Regional Office – to keep them up to date with new practice.

The system has a built-in process of sell-by dates which places responsibility on those making the entries to bring them up-to-date. After two years they will be consigned to the database archive unless they are updated.

Good progress so far

After a period of testing the database went live on the NHS Net in June 1999 (it is described in Health Service Circular HSC 1999/110). By November about 800 entries had been made. Some examples are listed in the table. It is a source worth looking at. A major hurdle is the limitation to users accessing files through the NHS Net. This is proving to be a serious constraint and Jennifer Dixon and her colleagues are looking at ways to make the database more accessible.

Comment

Many people in the NHS may be sceptical about the development of yet another national database as a means of

SDP Database examples

Project	Base
Rheumatology clinic in primary care	Norwich
Rapid response team - to prevent avoidable admissions	Ipswich
Development of success criteria for clinical governance in primary care groups	South Cheshire
Women's Therapy Group - for survivors of childhood sexual abuse	Sheffield

More details and information about who to contact are on the database.

